

PHENIX WEEKLY PLANNING



7/30/2009
Don Lynch

This Week 7/27 - 7/31

Task

Start Date End Date

• Install IR floor plates, 12 ton cart & manlift	Done	Done
• Move MuID collars to AH	Done	Done
• Remove 4 MMS lampshades (2-3 days)	Done	Done
• Reinstall ladder and dumb waiter on EC in AH and fold down EC platforms (1 day)	Done	Done
• Field Fit $\frac{1}{2}$ octant retaining arm/clamps design to fit	Done	Done
• PC1 East repair fixture: order raw materials, order off-the-shelf components & hardware, receive and inspect components	Done	Done
• Meet with Carpenters to get permission to build MMS sta 2/3 scaffolding	Done	Done
• Install MuTrigger Cables behind MM	Done	Done
• Move MMS North/South	Done	Done
• Receive MuTrigger FEE's cable and connectors, prep and bundle for installation	Done	Done
• Open MMN hatch and O2 check atmosphere	Done	Done
• Reconnect EC utilities for shutdown mode	Done	Done
• Receive complete RPC3 N base, pitch support, lifting fixtures & $\frac{1}{2}$ octant 7&8 vertical support	in progress	7/29
• Install ladder/access platform and work		

This Week 7/27 - 7/31 Cont'd

Task

Start Date End Date

- platforms for work above MuID steel (3 days) in Progress 7/31
- Move MuID plumbing rack on pedestal away From gap 5 in Progress 7/31
- Fan Tray replacement evaluation and priority plan in progress 7/31
- Presurvey $\frac{1}{2}$ octants at RPC Factory in progress 7/31
- Install Station 1 Scaffolding (3 days) in Progress 7/31
- Work permits for RPC3, MuTrigger/MuTr N&S in progress 7/31
- Inspect Station 1 Scaffolding (1/2 day) 7/31 7/31
- cleaning and testing of MuTracker HV splitter boxes in progress 7/31
- Install MuTrigger Station 1 S FEE cable management 7/31 8/6
- Evaluate Gap 5 grout at Factory in progress 8/6
- Receive and test MuTrigger FEE's in progress 8/6
- ID/label gap 5 N cables & pipes and move out of gap 5 in Progress 8/6
- Troubleshoot MUTrigger FEE's in MMN in Progress 8/31
- Troubleshoot MUTr decaps in MMN in Progress 8/31

Starting Next Week 8/3 - 8/7

Task

Start Date End Date

- Survey tapped holes on MuID5 steel and survey east and west RPC3 N support bases (3 days) 8/3 8/14
- Drill and tap MuID gap 5 steel top and north 8/3 8/14
- Install RPC3 N support base & grout (4 days) 8/3 8/14
- Install Station 3 N pitch control (unistrut rails) on pedestal and east and west gap 5 north walls and attach to support bases (tall column) 8/3 8/14
- Install MMS station 2/3 scaffolding 8/3 8/14
- Install Station 1 FEE's & Electronics and connect cables 8/3 8/28
- MuTr decapacitations & MuTr FEE trouble-Shooting in MMS Sta 1&3 8/3 8/28
- MuTr Rack 2 troubleshooting 8/3 8/28
- Vendor install Ar dewar & vaporizer 8/3 8/28
- Install rails and fences on gas pad 8/3 8/28
- DCM rack electric prep 8/3 8/30
- MuTr HV and FEE test and evaluation as MuTrigger FEE's & RPC's are installed 8/3 11/30
- Set up PHENIX "stage" for Summer Sunday Tour 8/5 8/7



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Continuing Tasks currently underway

Task	Start Date	End Date
• Assemble HV, experimental gas and N2 gas distribution and install tent	in progress	8/14
• Fabricate Base Locking/Installation fixture	in progress	8/14
• Fabricate RPC3 adjustable $\frac{1}{2}$ octant cradle	in progress	8/14
• Move PHENIX-North tunnel shielding, remove PHENIX-North vapor barrier and crystal palace, repair/replace area lighting	in progress	8/14
• Move MuID piping, piping supports out of Gap 5 to temporary store area	in progress	8/14
• Move MuID cables and cable tray out of Gap 5 to temporary store area	in progress	8/14
• Order & receive parts for gap5 N cable management	in progress	8/14



Continuing Tasks currently underway (cont'd)

Task	Start Date	End Date
• Design concept for Base locking/Installation fixture for RPC3N	in progress	8/14
• Design RPC3 adjustable $\frac{1}{2}$ octant cradle	in progress	8/14
• Prep RPC3 N racks for installation	in progress	8/14
• Simulated RPC installation at RPC Factory (practice/tests) commission all installation components base, locking/install, survey, cradle	in progress	8/31
• Plan and install 2 new PHENIX gas pad expansion pads	in progress	9/4
• Spec, purchase, install and test instrumentation and monitoring, cables, etc.for rack room AC3 and new electronics water chiller	in progress	10/31
• Spec, purchase, install and test instrumentation and monitoring, cables, etc.for non-PHENIX fire alarm status panel	in progress	10/31
• Spec, purchase, install and test power wiring for new DCM racks	in progress	10/31
• Start Design supports for Beampipe upgrade	in progress	11/30
• Design & Fabrication support for VTX	in progress	11/30
• Design support for FVTX	in progress	11/30
• Design support for FOCaI	in progress	11/30
• Fan Tray replacements (as time permits)	in progress	11/30

Continuing Tasks currently underway (cont'd)

Task	Start Date	End Date
• Test/replace rack transient suppression	7/20	12/1
• UPS feeds for GTM and GL1 racks	7/20	12/1
• Cordless phones in tunnel	7/20	12/1
• Individual relays on all HV supplies	7/20	12/1
• SF6 alarm to MCR?	7/20	12/1
• More volts to EMCAL FEM's?	7/20	12/1
• Revisit LV systemization/standardization of controls, etc.	7/20	12/1
• Correct wiring of the DCM crates enables	7/20	12/1
• Replace ECB1&2 (ADAM5000s) with a single new ADAM5000E	7/20	12/1
• Replacement OPC server computers	7/20	12/1
• Replace old PCI type RS485 interface boards with USB-Fiber and Fiber-RS485 system	7/20	12/1
• Add single-button ON/OFF controls to some LV GUIs	7/20	12/1
• Determine optimal baud rate for EC North RMC	7/20	12/1
• Remove the temporary FlatPAC in SMT4 and install two new MegaPACs	7/20	12/1

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Continuing Tasks currently underway (cont'd)

Task	Start Date	End Date
• VTX/FVTX LV Dist system evaluation	7/20	12/1
• Prep for production of up to 39 boards in 4 crates (VTX/FVTX)	7/20	12/1
• VTX/FVTX cooling system interlock design	7/20	12/1
• Evaluate possible design for 4x1 GL1 L1 triggers	7/20	12/1
• Test direct ethernet implementaion on Maszi's new HV control interface board	7/20	12/1
• Get air conditioners installed in mixing house	7/20	12/1
• Investigate shed/larger bottles for R134A	7/20	12/1
• Replace damaged compressed air flowmeter	7/20	12/1
• Add check valves to some supply lines (as needed)	7/20	12/1
• Design and build heat exchanger for HBD system	7/20	12/1
• Re-test HBD supply line for leaks (pad to mixing house)	7/20	12/1
• Replace/ regenerate HBD purifier and driers (late Fall)	7/20	12/1
• Send mass flowmeters out for recalibration (DC/PC, MuID, TOF.W)	7/20	12/1
• Replace pad chamber flowmeters in IR, re-label	7/20	12/1
• Investigate Mutr station 2 gas loss. Confirm labeling	7/20	12/1
• Replace/upgrade gas house PC's	7/20	12/1
• Move MuID distribution panel, for future RPC access	7/20	12/1
• Re-route several gas lines in the RPC3 south gap	7/20	12/1

Continuing Tasks currently underway (cont'd)

Task	Start Date	End Date
• Run gas lines to North tunnel	7/20	12/1
• Design and build gas humidifier	7/20	12/1
• Layout and build North distribution panel	7/20	12/1
• Run Signal/control lines to north tunnel (line goes to IR panel first)	7/20	12/1
• Build RPC gas rack for mixing house	7/20	12/1
• Install electronic and Gas PC in gas house for RPC's	7/20	12/1







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Expected IR Configuration During Shutdown '09

7/6 - 7/17	Run configuration EC and WC can be moved east/west ~3 ft
7/17-7/22	MMS moved south, CM in run position EC & WC can be moved east/west ~3 ft
7/22-7/28	MMS north, Run configuration WC can be moved east/west ~3 ft EC in AH
7/28-10/1	MMS south, CM in run position, EC in AH WC in west position (against wall), scaffolding in station 1 and station 2/3 south
9/25-11/10	MMS, CM & WC positions TBD, EC in AH
11/10-12/1	MMS & CM in run position, EC and WC can be moved east west ~3 ft

These dates are approximate and subject to change

August 10-31 Schedule

Task

Start Date End Date

- Tear down and remove PHENIX "stage" for Summer Sunday Tour
- Test base RPC3 N locking/installation fixture
- Test and commission RPC3N lifting fixtures at factory with S. Kane/designee as witness
- Erect PC1 repair tool
- First $\frac{1}{2}$ octant ready for installation
- Disassemble DC/P C1 cables & piping
- Install Station 1 MuTrigger FEE air & water and test
- Install new gap5 N cable & pipe supports, cables and piping and leak test piping
- Install RPC3 N $\frac{1}{2}$ Octants (16 days)
- Final leak test new Ar dewar/vaporizer and Closeout job
- Move DC on EC to access PC1 east
- Install Empties racks on gas pad
- Install MuTrigger FEE station 2/3 FEE's & Electronics & connect cables

8/10

8/11

8/10

8/14

8/10

8/14

8/12

8/14

8/17

8/17

8/17

8/28

8/17

9/11

8/17

9/30

9/1

9/30

8/28

9/4

8/31

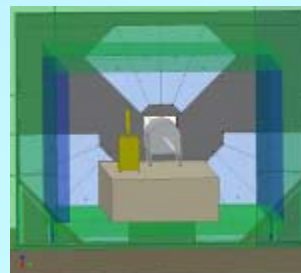
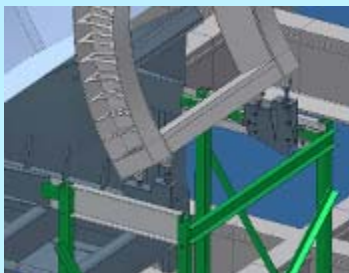
9/4

8/31

9/4

8/31


9/25

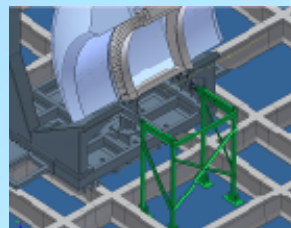


September Schedule

Task

Start Date End Date

- Close MMN Hatch and closeout WP  9/1 9/1
- Rack room re-organization 9/1 11/30
- CM Power upgrade (as toime permits) 9/1 11/30
- Labor Day Holiday - no work 9/7 9/7
- Remove failed PC1 east module 9/10 9/14
- Install spare PC1 east module 9/10 9/14
- Install 2 RPC3 N racks (1/2 day) 9/8 9/18
- Test PC1 spare and verify operation 9/14 9/17
- Install MuTrigger FEE station 2/3 air & water plumbing and test 9/14 10/9
- Move DC on EC back to normal position 9/18 9/18
- Reconnect cables and piping on DC and PC1 East 9/21 9/25
- Remove station 1 south scaffolding 9/21 9/25
- Install LV Dist modules in MuTrigger S. 7/20 12/1
- Remove temporary MegaPAC in sRPC1 rack and install new full MegaPAC and finish controls for it 7/20 12/1
- Install rack components in RPC3 N racks 9/21 9/30
- Final verification tests on PC1 east repair 9/28 9/30



October Schedule

Task

Start Date End Date

- Disassemble and store PC1 east repair fixture 10/1 10/2
- Attach cables to RPC3 N racks and to Detector $\frac{1}{2}$ octants 10/1 10/9
- Install new PHENIX north tunnel thermal/vapor barrier replacing crystal palace (1 week) 10/1 10/30
- DCM rack supply& Return plumbing 10/5 10/16
- Remove MMS Sta 2/3 scaffolding 10/12 10/23
- Commission RPC3 N racks and detectors 10/12 10/30
- DCM rack internal plumbing 10/19 10/30
- Reinstall MMS lampshades (2 days) 10/26 10/30



November Schedule

Task

Start Date

End Date

TECHNICAL SUPPORT NOON

- Install heaters and thermostat(s) for RPC3N thermal control 11/2 11/6
- Reinstall PHENIX North tunnel shielding (3 days) 11/2 11/6
- Cooldown for Run 10 Starts 11/7 11/7
- Move MuID Collars to IR 11/7 11/7
- Disconnect electric & Fiber in EC 11/2 11/7
- Remove ladder & dumb waiter from EC & Fold up EC platforms in AH (1 day) 11/9 11/10
- Veterans Day Holiday - no work 11/11 11/11
- Remove IR Floor plates and move 12 ton cart to AH 11/12 11/12
- Move EC to IR 11/12 11/13
- Reconnect electric and fiber to EC 11/16 11/20
- Reinstall ladder & dumb waiter on EC & Fold down EC platforms in IR (1 day) 11/16 11/20
- Pink sheets, white sheets, blue sheets 11/16 12/1
- Move MMS north, Install MuID Collars 11/23 11/25
- Assemble shield wall base and wall in AH 11/23 11/30
- Thanksgiving Holiday - no work 11/26 11/27
- Roll in shield wall 11/30 11/30
- Start Run 10, All shutdown activities completed 12/1 12/1

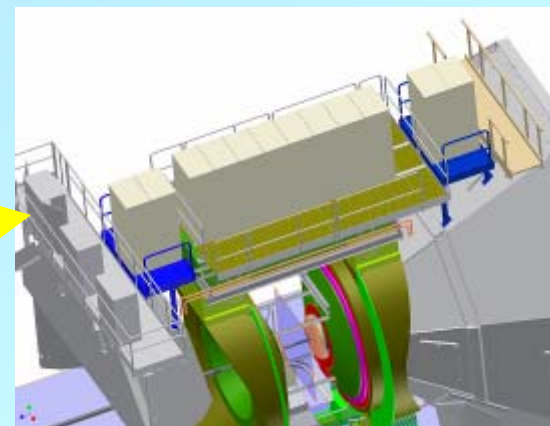


Other potential work this shutdown:

1. Remove the RPC prototype absorber

Confirmed: this to be done while
Station 1 scaffolding is in place

2. Prep Bridge for future upgrades
(if time permits)



More work to be scheduled



Need to change location of hose connection: too close to electrical box



Some hoses getting old: replace before they leak



2009 Building Maintenance Issues

- Roof leaks in utility bathroom at northwest corner behind tech offices and over door between rack room and assembly hall.
- Heat wrap tape for trailer bathroom toilet drains to prevent freeze/clogging in winter.
- Improved Rack Room AC performance (This item has been addressed time and again but unsatisfactorily. Currently the AC fails periodically and is repaired only to fail again. On-condition maintenance is not adequate...an engineered solution is needed.)
- Icy conditions at mixing house north stairs
- Mixing House loose board ?



Safety, Security, etc.

- New efforts to review/update PHENIX procedures is underway.
- Now that scaffolding is going up: no-one on scaffolds (except erecting crews) until they are inspected.
- Keep your hard hat handy. Hard hats required when crane in use and when others are working on scaffolds above you.
- Wear gloves and steel toed shoes when appropriate.
- No one in North and South magnets without signing entry log.
- Confined space training required for entry into north and south magnets.
- Obey scaffold limits: no more than 2 persons per level. See work permit for further restrictions.
- If you are working on the MUTrigger FEE project, MuTr work or will be working on the RPC3 N or the PC1 repair you will need to read and sign the work permit.

Where To Find PHENIX Engineering Info



No planning meeting
7/30 due to Ring Road
Renaissance Celebration

Next planning meeting:
8/6

Links for the weekly planning meeting slides, archives of past meeting slides, long term planning, pictures, videos and other technical info can be found on the PHENIX Engineering web site:

http://www.phenix.bnl.gov/WWW/INTEGRATION/ME&Integration/DRL_SSint-page.htm

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